

# Recovery Plan Action Status

Plan Name: Spotfin Chub

Plan Status: Final

Plan Date: 21-Nov-83

Lead Agency: USFWS

Lead Office: Asheville Ecological Services Field Office

(828)

258-3939 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spotfin Chub (Erimonax monachus)	2	1.1	Continue to utilize existing legislation and regulations to protect species and habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Graduate Student	1. See attachment: general categories for Implementation Schedules. 2. Other agencies' responsibility would be of a cooperative nature or projects funded under a contract or grant program. In some cases contracts could be let to universities or private enterprises. 3. Note: ALL ESTIMATES ARE FOR FWS FUNDS ONLY.

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Spotfin Chub (Erimonax monachus)	3	1.2.1	Determine species present distribution and status	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Habitat Status, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Species Expert	Four population clusters exist: upper Little Tennessee River system, NC; Emory River system, TN; Buffalo River, TN; and Holston/North Fork Holston River system, VA/TN. This species has been reintroduced into two streams: Abrams Creek and Tellico River (both lower Little Tennessee River system, TN). There is evidence that the introduction in the Tellico may be successful, but the restoration efforts in Abrams Creek appear to have failed.
Spotfin Chub (Erimonax monachus)	3	1.2.2	Characterize habitat and determine essential elements	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Competition, Research: Disease, Research: Habitat Requirements, Research: Migration, Research: Predation	Contract, Graduate Student, Internal Field Assistance, Species Expert	Some of this work has been done, which led to the selection of Abrams Creek and Tellico River for restoration efforts. Resource managers intend to establish habitat and ecological criteria to address this task in the near future.

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Spotfin Chub (Erimonax monachus)	3	1.2.3 & 1.2.4	Determine the extent of preferred habitat and present information in a manner which identifies areas in need of species attention	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Management: Habitat Maintenance and Manipulation, Other: Law Enforcement, Research: Habitat Requirements	Contract, Graduate Student, Internal Field Assistance, Species Expert	The upper Little Tennessee River system appears to be the best population. About 17 miles of mainstem (both banks; 37 total miles for one bank or the other) were recently purchased and is now managed by the State of NC.
Spotfin Chub (Erimonax monachus)	3	1.3.1 - 1.3.5	Determine present and foreseeable threats to species	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Environmental Contaminants, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Species Expert	Sedimentation appears to be a major concern, as the species is a crevice spawner, and crevices clogged with sediments are not suitable spawning sites. Additional threat studies may be desirable.

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Spotfin Chub (Erimonax monachus)	3	1.3.6	Determine measures needed to minimize threats and implement where needed to meet recovery	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries, State of Tennessee, State of North Carolina, State of Virginia	Management: Habitat Maintenance and Manipulation, Management: Other	Contract, Graduate Student, Internal Field Assistance, Species Expert	Costs unknown. The USFS is addressing sedimentation issues (primarily from ORVs) in the upper Tellico River.
Spotfin Chub (Erimonax monachus)	3	1.4.1-1.4.4	Solicit help in protecting species and essential habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Administration, Other: Information and Education	Contract, Internal Administrative, Internal Technical Assistance, Species Expert, Volunteer	The USFS, States, International Paper, and other partners are working to protect the species and its habitat.

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Spotfin Chub (Erimonax monachus)	3	1.4.5	Develop and utilize information and education programs (slide/tape shows, brochures, etc) for local distribution	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Information and Education	Contract, Graduate Student, Internal Administrative, Internal Technical Assistance, Species Expert, Volunteer	Conservation Fisheries, Inc., have done much to promote the welfare of this species.
Spotfin Chub (Erimonax monachus)	3	2.1	Survey rivers within species' historic range to determine availability of suitable transplant sites	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Habitat Requirements, Research: Habitat Status, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Species Expert	Resource managers intend to establish habitat and ecological criteria to address this task in the near future.

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Spotfin Chub (Erimonax monachus)	3	2.2	Determine best method of establishing new populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Propagation, Research: Reintroduction	Contract, Internal Administrative, Internal Field Assistance, Species Expert	Task 2.1 - 2.3 may not be required if other populations are found in task 1.2.1. We appear to be close to determining the best method for reintroducing populations if the initial success of the Tellico River reintroduction can be maintained for several more years. Direct transplantation of cultured subadults/ adults appears to be the preferred method.
Spotfin Chub (Erimonax monachus)	3	2.3	Reestablish populations within historic range as needed to meet recovery	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Management: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Species Expert	Two streams have been the focus of reintroduction efforts (Tellico River, Abrams Creek), although only one (Tellico) has shown signs of success. An additional reintroduction will start within a year (Shoal Creek). The Tellico River population continues to show signs that a SFC population can be established. YOY have been observed in 2006 and 2007. CFI continues to reintroduce several hundred fish annually to increase population numbers.

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Spotfin Chub (Erimonax monachus)	3	2.4	Implement same protective measures for these reestablished populations as for known populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Management: Habitat Maintenance and Manipulation, Management: Other, Research: Environmental Contaminants, Research: Other Information	Contract, Internal Administrative, Internal Technical Assistance	NEPs have been established for reintroductions (e.g., Tellico River, TN; Shoal Creek, TN/AL), so they will not have the regulatory protection under the ESA as do natural populations. However, these populations are receiving some level of protection from primarily occurring on USFS (Tellico) and International Paper(Shoal) lands.
Spotfin Chub (Erimonax monachus)	3	3	Conduct life history studies on a need-to-know basis	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Competition, Research: Disease, Research: Migration, Research: Predation, Research: Propagation	Contract, Graduate Student, Internal Field Assistance, Species Expert	Costs unknown. These studies will be developed and carried out where there is a specific need for data necessary to reach recovery. Much is known regarding its life history but some additional information may be beneficial. This species needs lots of space for growing out cultured juveniles for reintroduction efforts.

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Spotfin Chub (Erimonax monachus)	3	4	Investigate the need for habitat improvement and implementation only where needed to meet recovery objective	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Management: Habitat Maintenance and Manipulation	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Costs unknown. Riparian habitat restoration work has been and continues to be conducted in the upper Little Tennessee River system. These projects serve to reduce sedimentation and nutrients to this species? habitat.
Spotfin Chub (Erimonax monachus)	3	5	Develop and implement a monitoring program	Ongoing Current	FY 2007	FY 2017	U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Habitat Status, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Species Expert	Biologists initiated a non-invasive monitoring program in the upper Little Tennessee River system. Ten sites with SFC habitat were chosen and from 4-8 50m transects (parallel with flow) were snorkeled both up- and downstream and SFCs counted within 1m of the chain. Each successive year, an alternating 5 sites will be sampled, over a total of 11 years.



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Spotfin Chub (Erimonax monachus)	3	6	Annual assessment of recovery program and modify where needed	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, North Carolina Wildlife Resources Commission, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, North Carolina Natural Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Administration	Internal Administrative	